RSG Series

Residential Seamless Mobility Gateways

Easy to use and simple to install—Enhance your customers' home networks and provide high-quality voice services with Motorola's Residential Seamless Mobility Gateway (RSG) Series and a broadband connection.

Voice and Data—Where Your Customers Want It

The Motorola RSG Series products are designed to provide a seamless gateway for voice calls and data communication. With an RSG and a compatible dual-mode mobile handset (DMH), a consumer's voice call or data connection can roam across the home's Wi-Fi® network and the cellular network without interruption, as the RSG seamlessly transfers the signal. Voice traffic is prioritized over Internet traffic for high-quality voice calls, even while surfing the Web. The RSG Series products also support fixed-line voice with a variety of rich CLASS features, such as caller ID, call waiting, three-way calling, and call forwarding.

Fast, Secure Wireless and Wired Connections

RSG Series products can plug into any cable or DSL broadband connection and feature a four-port wired router. Also built into every RSG product is a wireless access point using both the popular 802.11b wireless standard and the nearly five-times-faster 802.11g standard. With Wi-Fi Protected Access and advanced firewall included, the RSG Series eliminates the need for stand-alone routers, hubs, and access points, providing a single platform for robust and secure home networking.

Residential Seamless Mobility Gateway Series

Enables full-featured telephone service plus seamless mobile and landline voice and data communication

Easy to use and simple to set up

Front-panel easy-to-read LEDs for power, data activity, and voice line status

Intuitive, Web-based configuration

Built-in security features

Power management enhancements for optimizing dual-mode handset battery performance

Plug and play—plugs into any broadband connection (cable or DSL)

Compact, low-profile design

Voice-over-data prioritization—talk on the phone while using the Internet, without a noticeable reduction in voice quality

Built-in advanced router and firewall with 802.11b/g wireless access point, eliminating the cost and clutter of stand-alone routers, hubs, and access points

Supports VPN pass-through for remote access via IPSEC/PPTP/L2TP NAT tunneling

Supports caller ID, call waiting, three-way calling, and other CLASS services

Enables the delivery of up to two lines (RJ-11) of full-featured telephone service (RSGu3502 model only)—the RSGu3502 uses up to 2 SIM cards for authentication

Security Features

Motorola's RSG Series offers industry-standard security features, including:

- IPSEC/PPTP/L2TP NAT tunneling (for VPN pass-through)
- 802.11i security (WEP-64/128, WPA-PSK, WPA, WPA2, TKIP, AES, 802.1x)
- 802.11i (pre-authentication)
- Support for storing X.509 device certificate and operator public key
- Mobile pairing

Power Optimization

Enhanced power management features optimize the battery life of the dual-mode handset. In addition to 802.11e U-APSD (WMM power save), a highlight of the 802.11 power management standard is the synchronization between the RSG and the DMH. The dual-mode cell phone receives data from the RSG at infrequent intervals, allowing the DMH to enter sleep mode when the phone is not in use, minimizing the phone's "on time" and improving battery utilization.

Provider Benefits

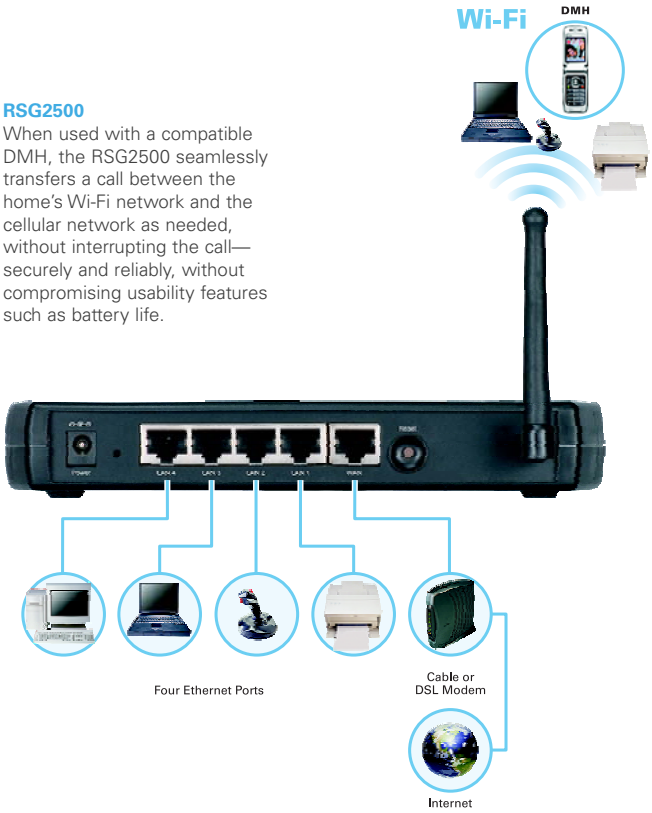
- Ability to offer a consumer both residential and cellular phone service (RSGu3502 models only)
- Increased customer satisfaction from improved in-home coverage, a key user network quality metric
- Improved customer retention through unique value-added services and the packaging of mobile and landline phone services
- Greater pricing flexibility resulting from multi-service packaging and migration of customers to higher revenue/margin wireless offerings
- Ability to offer Quality-of-Service (QoS) for voice-over-data prioritization

Consumer Benefits

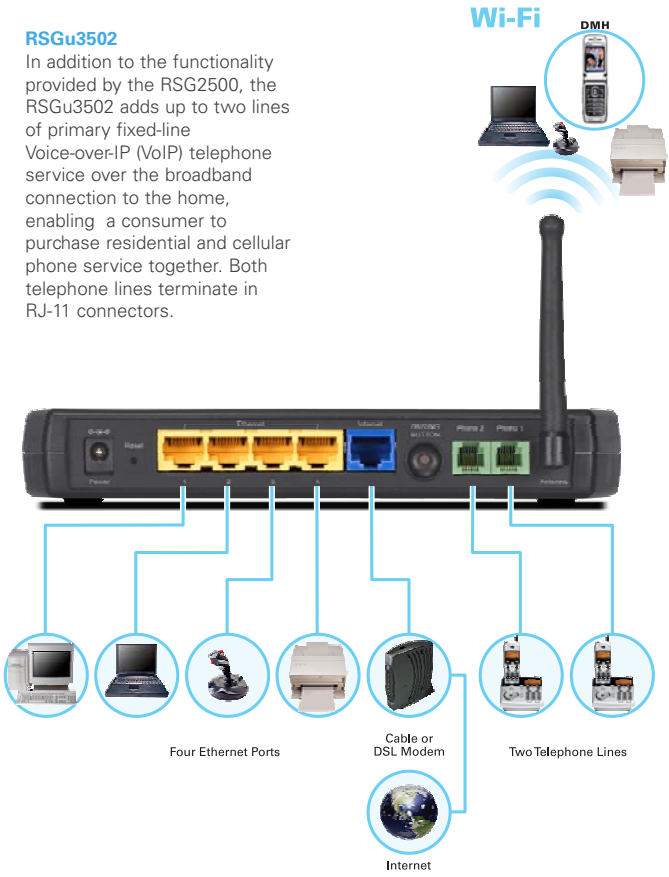
- Reduced cellular bill resulting from off-loading the cellular air-interface when calls are made from the DMH in the home through the RSG
- Improved in-home service coverage and reliability (often limited with cellular service alone)
- The convenience of a single mobile number and voicemail service, whether inside or outside the home
- Mobile and landline voice service interworking, allowing for a shared "household" number as well as individual mobile and landline numbers

RSG SERIES
Residential Seamless Mobility Gateways

RSG2500
When used with a compatible DMH, the RSG2500 seamlessly transfers a call between the home's Wi-Fi network and the cellular network as needed, without interrupting the call—securely and reliably, without compromising usability features such as battery life.



RSGu3502
In addition to the functionality provided by the RSG2500, the RSGu3502 adds up to two lines of primary fixed-line Voice-over-IP (VoIP) telephone service over the broadband connection to the home, enabling a consumer to purchase residential and cellular phone service together. Both telephone lines terminate in RJ-11 connectors.



RSG SERIES
Residential Seamless Mobility Gateways

WHAT'S INCLUDED

Power supply and cord, Ethernet cable, vertical mounting stand, and CD-ROM with User Guide

DIMENSIONS

1.6 in H x 5.5 in W x 7.5 in L (4.1 cm x 13.9 cm x 19.1 cm)

INDICATORS

RSG2500	8 multi-state LEDs
RSGu3502	10 multi-state LEDs

POWER

AC Input	90 to 264 VAC, 45 to 65 Hz
Average Consumption	4.8 W (nominal)

SYSTEM REQUIREMENTS

Broadband access (cable or DSL), PC with Ethernet port and Web browser (for configuration), dual-mode handset and accompanying wireless voice service

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0 °C to 40 °C (32 °F to 113 °F)
Storage Temperature	–30 °C to 80 °C (–22 °F to 176 °F)
Operating Humidity	5 to 95% R.H. non-condensing
Storage Humidity	95% R.H.

REGULATORY

CE, UL, FCC, CB, WEEE, and ROHS approved

DATA PORTS

1 WAN, 4 LAN (RJ-45 Ethernet plus)

WAN INTERFACE

Physical interface	RJ-45 10/100 Ethernet
Electrical interface	IEEE 802.3

Dynamic (DHCP) and static IP address assignment, PPPoE, primary and secondary DNS servers, and device control and discovery via UPnP

LAN INTERFACE

Physical interface	10/100 Ethernet RJ-45 (auto-sensing/auto-MDIX)
Electrical interface	IEEE 802.3

Enable/disable DHCP server, NAPT, bridge mode, and DMZ
Override/restore MAC address, dynamic DNS, DNS proxy

WIRELESS LAN

Wireless interface	IEEE 802.11b/g
Power output	19 dBm +1.0/–1.5 dB at all rates in all channels (IEEE 802.11b), 16 dBm +1.0/–1.0 dB at 54 Mbps in all channels (IEEE 802.11g)
Receiver sensitivity	> –90 dBm at 11 Mbps; > –74 dBm at 54 Mbps
Certification	Wi-Fi IEEE 802.11b/g, Wi-Fi Protected Access 2, Wi-Fi WMM, Wi-Fi WMM power save
Antennas	One external removable, one internal
Mobile communication	User-friendly mobile secure pairing with compatible dual-mode handset
Regulatory domains	US, Canada, ETSI, EMEA, Asia Pacific, Latin America

ROUTING

NAPT routing with support for port forwarding, DMZ, VPN pass-through, and full suite of application layer gateway support

SECURITY

Stateful packet inspection firewall with pre-configured profiles, including content filtering for parental control
IPSEC/PPTP/L2TP NAT tunneling (for VPN pass-through), IEEE 802.11i security (WEP-64/128, WPA-PSK, WPA, WPA2, TKIP, AES, 802.1x), 802.11i (pre-authentication)
Support for X.509 operator public key and device certificates

MANAGEMENT

Local and remote management using TFTP, HTTP, HTTPS push/pull configuration, and firmware upgrade using XML
WAN HTTPS server for remote administration and diagnostics
IEEE 802.1p voice traffic prioritization

SEAMLESS MOBILITY ENHANCEMENTS

Quality-of-Service (QoS)	IEEE 802.11e WMM admission control
Power management	IEEE 802.11e WMM power save/ U-APSD (unscheduled-automatic power save delivery)

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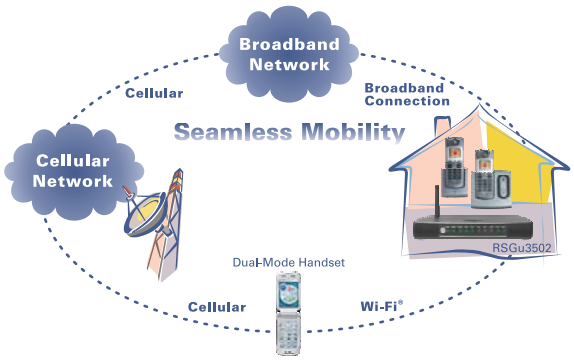
Motorola Delivers Fixed Mobile Convergence
Seamless mobility—our promise to you.



TELEPHONY INTERFACE (RSGU3502 ONLY)

Lines	One or two voice lines (RJ-11 plus)
Line length	5 REN 1000 ft maximum
Call signaling protocol	Unlicensed mobile access (UMA) using GSM over IP
Call features	Caller ID block/unblock, Caller ID with call waiting enable/disable, connect to voicemail, three-way calling (two simultaneous three-way calls using G.711 codecs only), caller name, CNAP/CLIP/CLIR, call offering CFU/CFB/CFNRy/CRFNRc, call waiting/call hold, multi-party
Tone generation	Distinctive ringing, busy tone, confirmation tone, dial tone, off-hook warning tone, ringback tones, reorder tone, stutter dial tone, message waiting tone, call waiting tone
Codec support	G.711 (a-law and μ-law), GSM AMR, GSM FR

G.165/G.168 echo cancellation with a 16 ms tail, dynamic jitter buffer

All features, functionality, and other product specifications are subject to change without notice or obligation.

Be advised that any services provided through this equipment are not intended to replace or be a substitute for primary line voice services or Plain Old Telephone Service (POTS) and are not meant to provide guaranteed 911 or E911 services or to permit access to 411 directory assistance services. Your service provider, not Motorola, is responsible for the provision of Voice-over-IP (VOIP) telephony services through this equipment. Motorola shall not be liable for, and expressly disclaims, any direct or indirect liabilities, damages, losses, claims, demands, actions, causes of action, risks, or harms arising from or related to the services provided through this equipment. Important: Be aware that you will not be able to make any calls using this Voice-over-IP (VOIP) device if your broadband connection is not functioning properly. You will also not be able to make any calls using this Voice-over-IP (VOIP) device if you have lost electrical power.

MOTOROLA

Motorola, Inc. 101 Tournament Drive, Horsham, Pennsylvania 19044 U.S.A. www.motorola.com

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